The Air Line Pilot

APRIL, 1952

Inspection of Pacific Air Lift by ALPA Committee

Seniority, Sex, and Salary
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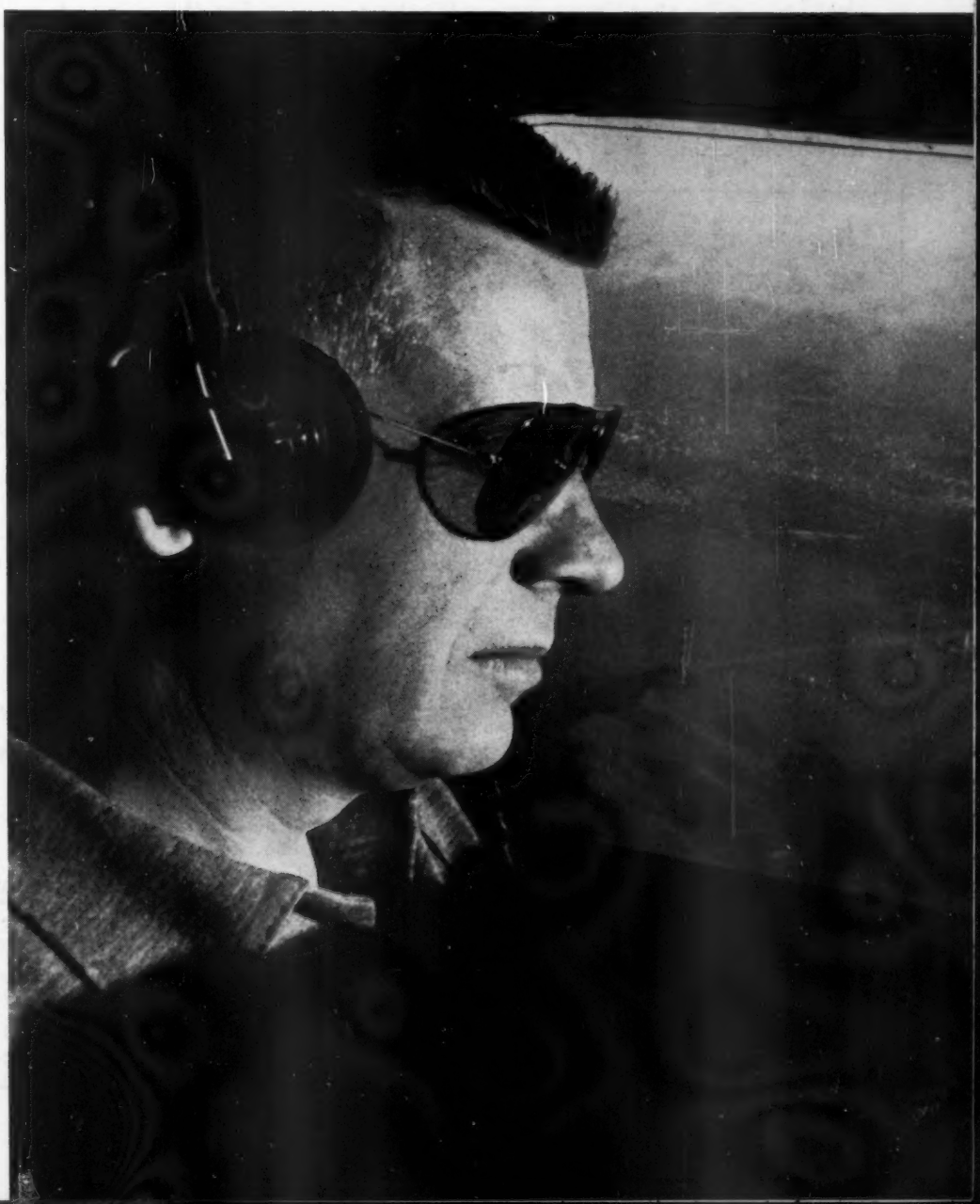

Flying the Air Lift
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Pacific Air Lift Inspection

When Major General Joseph Smith succeeded Lt. General Laurence S. Kuter as Commander of MATS, ALPA President Clarence N. Sayen made known to him ALPA's willingness to cooperate in matters of national defense. As a result, MATS Commander Smith suggested that an official ALPA committee be established to fully inspect the Pacific Air Lift portion of the global MATS structure. Following is a report on the Air Lift operation by the Inspection Committee which consisted of President Sayen, ALPA Treasurer R. G. Strait, Chairman American Council 39 Roy E. Dooley, Jr., and ALPA Washington Representative Larry Cates.

The Committee assembled in San Francisco, February 6, 1952. The following morning they took off on the first leg of the tour—from Travis Field to Hickam Field, Honolulu. Only one stop-over was made on the trip from Honolulu to Haneta Airport, Tokyo, that was a gas stop at Wake Island. At Tokyo, the major portion of the report was compiled.

On the return trip, the Committee flew the Northern route with stops at Misawa, Shemya, and Anchorage. They landed on U. S. soil at Seattle, where they met with Seattle based ALPA members.

The Air Line Pilot

April, 1952

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Clarence N. Sayen
President
Jerome E. Wood
First Vice-President
F. A. Spencer
Secretary
R. G. Strait
Treasurer
Larry Cates
Legislative Representative

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W. Johnston, Editor

Most publicized in a long list of accomplishments of the Military Air Transport Service has been its Pacific Air Lift support of the Far East Air Forces during the Korean war. As impressive as this support may be at first glance, it becomes more impressive when it is noted that it was accomplished while continuing to meet exceptionally heavy demands upon its services in the Atlantic and Mediterranean and while continuing to maintain an adequate service on its standard routes. The key to this success has been the contribution of pilots and equipment of commercial airlines. The build-up of American forces in Europe piled on top of the Pacific Air Lift has been a strenuous drain on MATS facilities. It has been the contribution of commercial carriers of men and planes to which MATS officials give credit for allowing the organization to meet the demands made upon it.

The addition of equipment and pilots supplied by commercial carriers to the MATS operation was the result of a plan formulated approximately two years previous to the outbreak of war in Korea. The plan was put into effect so that MATS would have a reserve of men and equipment upon which to draw in case of any emergency. Before the plan was put into operation MATS pilots and equipment were being utilized to the fullest extent. An emergency would have left the organization without facilities with which to expand. The addition of air line men and equipment, however, meant that an emergency could be handled without interrupting the MATS routine operation.

The wisdom of this plan became apparent when war came to Korea:

At the outbreak of hostilities, MATS was flying less than sixty C-54 transports in its Pacific division. The operation was a mere framework, but it was a solid framework upon which a healthy operation could be built should an emergency arise. The bases, the trained ground crews, the routes, the experienced flight crews were there, ready to put MATS' plans for mobilization of commercial carriers into operation.

Activation

War came in June, 1950, and the plan was activated. Forty four-engine transports from the Atlantic and Continental divisions were diverted to the Pacific. Commercial air lines were called upon to supply their compliment. The first flight for MATS of a commercial airliner was flown by Seaboard and Western on July 3rd, and other air line equipment began

ON THE COVER

Captain Bill Thornberry, UAL, Council 57, passes San Francisco's Golden Gate on the Pacific Air Lift leg from Travis Air Force Base to Honolulu.

arriving as soon as the conversion of radio equipment, tanks, and interiors could be made. At the end of August, 1950, sixty-two commercial aircraft were in MATS service. Added to these were fifteen planes from the Royal Canadian Air Force, and three from Belgium's Sabena Air Lines.

In June, 1950, MATS was flying approximately seventy tons a month to the Far East. A month later, the effect of the addition of commercial aircraft began to show on the tonnage rate. In July the figure leaped to 1,470 tons. By September the tonnage figure had risen to 1,800.

The vital contribution of commercial air lines to the Pacific Air Lift has been obvious. It has meant that MATS could maintain continuous flight. Previously, air lift planes had but one crew per plane. The air lines supplied three and four crews per plane and could, therefore, maintain a constant flow of necessary planes by replacing those withdrawn for maintenance.

July, 1950 - December, 1951

In September, 1950, at the peak of the air lift operation, a total of 250 planes were in service—100 MATS planes, 72 troop carriers, 66 commercial, and the remainder, contributions of Canada and Belgium. Today, the commercial air lines are still operating 60 aircraft within the MATS framework. Since the 40 MATS planes supplied by the Continental and Atlantic divisions have been returned to their respective bases, and since Pacific division planes are often called upon to supplement those on the Atlantic division, the commercial aircraft make up the core of the Air Lift Operation. As a result, the 60 commercial planes are flown at a rate triple that of June, 1950. The statistical breakdown runs like this: From July, 1950, to December, 1951, MATS flew 29,207 passengers, 9,196 tons of cargo, and 1,949 tons of mail—a total of 14,585 tons. Commercial carriers flew 81,891 passengers, 12,538 tons of cargo, and 4,499 tons of mail, making its total 26,610 tons.

The Committee met with officers of the Japan Air Line during the inspection trip. Left to right: S. Yanagida, President; C. N. Sayen, ALPA President; Y. Kojima, Executive Manager; Larry Cates, ALPA Legislative Representative; and S. Matsuo, Managing Director.

Today, the air lift has been slowed down in keeping with the relative quiet of the Korean war but the commercial planes and crews are kept in operation, so that in case of emergency stepped-up activity could be instigated without any period of inactivity.

Other Services

The conception, gained from the MATS title, that the organization is

CARRIER	Jan. 5, 1951 Type Aircraft	No.	Mar. 20, 1951 Type Aircraft	No.	Dec. 11, 1951 Type Aircraft	No.
Transocean	DC-4	7	DC-4	7	DC-4	7
Flying Tigers	DC-4	7	DC-4	7	DC-4	8
Overseas National	DC-4	5	DC-4	5	DC-4	4
Cal. Eastern	DC-4	3	DC-4	4	DC-4	5
S&W	DC-4	7	DC-4	7	DC-4	6
United	DC-4	7	DC-4	6	DC-4	5
NWA	DC-4	9[1]	DC-4	5[3]	DC-4	8[5]
Alaska	DC-4	3	DC-4	3	——	—
Pan Am	DC-4	18[2]	DC-4	16[4]	DC-4	14[6]
U. S. Overseas	.....	....	.....	....	DC-4	3
TOTALS.....		66		60		60

1. Includes 5 from TWA.
2. Includes 1 from Western, 6 from American, 2 from Capital, 1 from Panagra.
3. Includes 4 from TWA.
4. Includes 1 from Western, 5 from American, 2 from Capital, 1 from Panagra.
5. Includes 5 from TWA, 1 from Delta.
6. Includes 6 from American, 1 from Capital.

Source: MATS

COMMERCIAL AIRCRAFT IN PACIFIC AIRLIFT

President Sayen meets with Tokyo domiciled pilots of Northwest Air Lines, Council I. Left to right: Larry Cates, ALPA Legislative Representative; W. F. Wallace; C. N. Sayen; R. C. Sparkman; A. F. Becker; J. C. Denman.

solely an air transport operation is false. There are other services supplied by the group which are vital to the operation of both civil and military aircraft.

AWS

Among these services is the Air Weather Service, which charts weather conditions on a world-wide scale. AWS, in conjunction with the U. S. Weather Bureau, also maintains a watch over long-range aspects of weather as it affects safety. It also digests this global weather and theatre observations to pin-point weather conditions for combat aviation. The operation utilizes the standard ground meteorological activities and observations.

Closely connected with the Air Weather Service is the Airways and Air Communications Service with the responsibility for transmitting this mass of weather data. Among the facilities of this communications group are control towers, direction finders, radio ranges, GCA and ILS facilities, air-ground radio, point to point radio, Loran and other navigational aids, radar beacons, facsimile, message centers, and crypto centers.

In a constant state of alert are mobile units of both AWS and the Airways and Air Communications Service. They move Air Force units into any emergency area. The basic units are stationed with theater commands.

Air Rescue

Added to these services is the Air Rescue Service. Their work is not alone concerned with accidents but also with precaution against accidents. A major portion of their mission is to intercept aircraft with engine trouble.

The final service is Air Resupply. It is designed to supply service to isolated units and is equipped with specialized equipment for the dissemination of psychological warfare material.

Expansion

The expansion of airlift to practically any place in the world can be accomplished in a manner similar to that which would be necessary to expand the schedules over a particular route of a well-organized air line. MATS maintains the basic facilities, ground personnel, etc. The need for expansion of an air line lies primarily in the need for additional aircraft, flight crews and maintenance. In the Korean Airlift operations MATS furnishes the basic facilities and some of the aircraft and crews, with the air lines under contract each furnishing their own aircraft, crews, operational control, dispatch and maintenance. Under such an arrangement any segment of the MATS air line may be rapidly expanded to cover peak demands by the addition of more aircraft, and crews and with the air lines handling their own maintenance and operational control. The Pacific Air Lift operation was found by the ALPA Inspection Committee to be a finely knit and well-integrated operation. It is an excellent demonstration of sound planning and of the importance of an adequate airlift to any modern military operation. It was also an excellent demonstration of the extent to which the civilian air lines of the United States are an adjunct to the military reserve and the National Defense, in accordance with the requirements of the Civil Aeronautics Act of 1938.

The Plan

A master plan providing for the integration of a large segment of the

PACIFIC AIRLIFT
OUTBOUND TO JAPAN

CARRIER	Passengers		Cargo (tons)		Mail (tons)		Total Tonnage		Trips	
	Dec. 1951	Total to date	Dec. 1951	Total to date	Dec. 1951	Total to date	Dec. 1951	Total to date	Dec. 1951	Total to date
Commercial (U. S.)	3,552	85,443	594.6	13,132.8	715.5	5,214.4	1,732.5	28,342.1	362	5,684
Military (MATS)	268	29,475	312.5	9,508	118	2,066.7	462.5	15,047.9	95	2,944
RCAF	5	3,178	7.1	— 561.2	39.8	74.5	47.5	1,016.9	15	324
Canadian Pacific	471	7,132	.....	.6	.....	.....	56.9	857.4	17	253
Sabena	43	415	19.3	437.9	12	320.3	35.3	804.3	7	152
Totals	4,339	125,643	933.5	23,640.5	885.3	7,675.9	2,334.7	46,068.6	496	8,807

Source: MATS

U. S. commercial air fleet with the military has been approved after study by the Air Coordinating Committee, the Air Lines Mobilization Group, and other interested parties.

The plan calls for the "drafting" of a total of 400 four-engine commercial aircraft. 331 of the planes are to be modified immediately for possible call on 48-hours notice.

The greater mass of the fleet will come from scheduled lines, who will supply 358 of the 400. Thirty-five will come from non-scheduled lines, one from an intra-state line, one from CAA, and five from executive owners. The cost of the modifications has been pegged at approximately $10,000,000.

The planes called for military use will be operated by air line crews under contract. The Air Force, however, reserves the right to place air line crews directly under military control. Planes remaining in commercial use will be reallocated among the air lines. This reallocation will be directed by the CAB.

Division

The fleet subject to call is divided into two parts:

A first line reserve fleet will consist of 91 aircraft—44 DC-4; 11 DC-6; 24 Constellations; and 12 B-377.

The second line reserve fleet, which will augment MATS and the first line reserve during peak-load periods will number 240, including 96 DC-4; 88 DC-6; 33 Constellations; and 23 Boeings.

Modifications will be financed by the military and will be done by the air lines when the planes come in for overhaul.

The plan anticipates ten hours daily utilization of the air line transports. Crew-plane ratio will be 4.15 crews per plane with a minimum of 3.5 crews per plane.

Personnel

The furnishing of all personnel required by the civilian contractors in the case of military contract operations is the responsibility of the contractor. The rates of compensations, rules and working conditions of pilots who engage in such operations should, therefore, be covered by contracts between the ALPA and the individual air lines. The Association presently has in effect separate contracts with each of the air lines whose crews are participating in the present Korean Airlift operation. It is the belief of the Association that proper mobilization planning of civilian personnel would require that each air line now negotiate standby contracts with their employees so they will be in a position to expeditiously activate and carry out their contractual commitments to MATS. In this manner the method of selection of the employees who will engage in such an operation would be definitely established as well as the rules and working conditions under which they will operate. With the aircraft converted on a standby basis and valid standby contracts with their employees an air line will be in a position to release bids to its employee domiciles in accordance with the terms of their contracts, and should be able to activate their operation within the required 48-hours.

ALPA presently has contracts in force covering the Pacific Air Lift operation with United, American, Eastern, Western, Capital, Flying Tigers, and Alaska air lines.

Timetable

Two timetables covering the activation of the plan have been set up. One of these provides timing for the operational end of the arrangement (what routes will be operated and how many aircraft will be allocated for these operations); the second covers arrangements between the air lines and the Department of Defense relative to assigning specific aircraft.

The minimum route pattern to be used in case of an emergency will be announced August 1, 1952. On May 25, the air lines will have an opportunity to present objections to the proposed pattern, the method of allocating aircraft, and the standards used to derive capacity requirements.

Tentative dates for the equipment arrangements include: April 15, 1952—Operators will inform the Defense Air Transportation Administration of the specific "N" numbers of aircraft recommended for modification. May 1, 1952—Negotiate contracts with the U. S. Air Force covering modification of aircraft. August 1, 1952—Negotiate an overall standby contract with the USAF to cover services needed for implementing the plan, i.e., training, maintenance, etc.

PACIFIC AIRLIFT
COMMERCIAL OPERATIONS

Inbound & Outbound, Jan. 1-Sept. 30, 1951

Carrier	Psgrs.	Cargo Tons
Pan Am	36,196	2,636
NWA	9,494	2,241
UAL	7,681	2,139
TAL	6,794	2,692
S&W	6,392	2,713
Tigers	10,709	2,180
ONA	7,179	1,592
Alaska	4,019	812
CEA	9,848	722

Source: MATS

Wake Island—Servicing around the clock keeps the Pacific Air Lift operation flowing.

Seniority, Sex, and Salary

In the following paragraphs, Captain Dave Kuhn, TWA Council 4, Los Angeles, cocks a droll eye at his brother pilots and the air line industry in general. Anyone who has read and enjoyed pilot Kuhn's "A Trip to the Home Office," will realize that his purpose is not to offend. It is hoped that these paragraphs will be received in the same manner in which they are written — humorously, not critically.

To an air line pilot there are but three factors in life worth consideration. When a group of airmen are gathered for "comprehensive discussion," this triumvirate is the basis of their combined thought. Seniority, sex, and salary. Each rational moment demands reflection on the three Ss.

To better understand the thinking of a pilot, let us explore his physical make-up. He wears number twelve shoes, has a waistline of forty inches, and a cap of six and seven-eighths to match. He has thick wrists and a low hair-line (if not bald). He is wide between the shoulders and narrow between the eyes. Since flying tolerates no error, he is an egotistical perfectionist. His uniform varies depending upon the whims of his chief pilot. (The one currently at the helm). If the chief happens to be obese, all of his pilots wear double-breasted uniforms to cover up his (the chief pilot's) executive paunch. If the chief is a thin individual, all of the boys under his command wear padded uniforms draped with patch pockets which bulge with a conviction of robustness.

The uniform is unimportant since it changes with each chief pilot. The victim is the individual line pilot who has to foot the bill for his chief's uniform tastes. What is important is the effort the average line pilot goes to in order to create an illusion. For example—A pilot who is low on the seniority list will take a new cap and stomp on it until there is no mistaking (in the public's eye) that he is a veteran. He refuses to sign his name unless his pinkies are covered by a pair of expensive pig skin gloves. His white scarf, of the finest parachute silk, screams that he is "an ol' air-mail pilot of open-cockpit days." When closed cockpits became the order (20 years ago) it broke many hearts. No longer can the fly boys sit around hotel lobbies with goggles dangling from their necks (Lindbergh style). As a substitute, they now wear over-size sunglasses, day and night, with the case conspicuously displayed on their belts. Some have felt the Roscoe Turner influence, as evidenced by the waxed mustache. These aren't hard to spot—some wear Russian type mosquito boots. They smoke pipes. You may have heard that they are "over the weather pilots"—when the weather is over, they fly.

It's Tough

Pilots do their job well. They have to in order to survive. More than in any other field of endeavor, it's the survival of the fittest. He must be cagey enough to overcome the built-in hazards of the plane manufacturers. He must outwit airways traffic control to avoid icing, thunderstorms, and mid-air collisions. He must declare his use of emergency authority when any action of his is contrary to regulation. He must have the ability to sustain flight with two engines out, when it is a known fact that planes crash with lesser troubles (strong arms usable for flapping are helpful). He must stand trial because of the noise his airplane makes while the air line installs jet stacks. He must be able to fly better than either his check pilot or CAA inspector if he is to keep his ticket and job. He must endure the reaming of a physical exam every six months. His very code of life is fashioned by his Management's Policy and Procedure Manuals. His lot is not easy nor simple. When or if he shows signs of weakening under this onslaught he is given the choice of being fired or resigning. Big choice. If pilots are scarce, the Company may try to save him with mental gymnastics as prescribed by the Company psychiatrist. Small wonder his thoughts recede to the fundamentals of his life—Seniority, sex, and salary.

As has been stated, pilots usually discuss the three Ss in hotel lobbies where the public may well benefit from their observations.

Brotherhood?

Seniority may not be important to the layman, but when a fellow pilot goes west a pilot will check the seniority list to see how many files he has moved up. To a pilot, it means choice of domicile, choice of runs (notwithstanding schedule clerks to the contrary), and choice of equipment flown. Seniority is jealously guarded. Friends have become bitter enemies over seniority rights. In checking into a hotel, seniority usually governs the choice of beds, bathroom utilization, and affairs of the heart. There have been cases in air line history where a flying executive (senior) and pilot (junior) were squiring the same dame.

That Word

With sex, it's the end result that counts. Most pilots fancy themselves as great lovers. The facts reveal many discrepancies in that line of thought. Any hostess will tell you that the most useless thing on a date is a pilot with a twenty-year pin.

Pilots approach sex in much the same manner as they execute an ILS procedure—fast and by the book. Being victims of habit, they are trying to conform to schedule.

It may appear as a contradiction, but pilots' wives do have children. Lots of them. It is a mystery how, since most pilots are home very little. The time they do spend at home is divided between golf and looking in the mirror.

Salary?

Probably the most abused of the

(Continued on Page 15)

Air Line Pilot Declares an Emergency

Following is an address by Captain Walter Jensen, American Air Lines, Council 93, given before the Spring Assembly of the Radio Technical Commission for Aeronautics. Says Captain Jensen: "For years we have all recognized the need for a (radar) beacon . . . the time has come to stop talking . . . action is required."

Airline pilots have often been accused of being highly skeptical individuals. That's true—we are, and I believe it's a good thing that we are skeptical. Greater flying safety is the result of this demand that anything new be proved beyond all doubt. About 95 per cent of the pilots using radar departure control out at Washington National Airport have been airline pilots, and for the last three months we have been giving radar traffic control its acid test. So far, with certain reservations, it has passed the test. Other than the controllers themselves, we are in reality the only group which have actually come in day-to-day contact with radar traffic control, so I feel that we are in a specially good position to report with some degree of authority as to the good and bad points of this new system and to make a few suggestions for its improvement.

Urgent Need

If this use of radar has proved only one thing so far, it is the urgent need for airborne radar beacons or transponders—I think we have more names for this equipment than there are pieces of the equipment in actual existence. Anyway, we need some means for reinforcing the radar signal received at the aircraft and sending it back to the ground properly identified. The need for equipment to accomplish this is urgent for several reasons. One is that the system cannot operate during some precipitation conditions without it. It is actually necessary to discontinue radar departures and go back to the old system of traffic control with its resultant delays on numerous occasions just because a light rain is falling. It doesn't take a thunderstorm or a heavy wet snow condition, as some of us used to think, to bring the use of radar to a halt. Often a light rain produces radar images that move erratically about the face of the scope, rapidly increasing and decreasing in size, and making it impossible to track targets. We, as pilots, require a system that will operate normally through all kinds of weather. In fact, the need is greatest when the weather is worst.

Radar must not only be able to track targets in all weather conditions, but it must be able to see all types of aircraft, large and small, at all times within the area of radar coverage. There must be no blind spots such as we have today. Radar could meet all these requirements, but it doesn't meet them today because we don't have beacons.

The average airline pilot feels very strongly about another aspect of radar. He wants positive assurance that there can be no possibility of mis-identification—that is, seeing one target on the radar scope, but talking, not to the aircraft making that target, but to another. It is obvious that the results of mis-identification could be disastrous—if not literally, at least to the principle of radar control. The only foolproof way to prevent it is, again, the use of a beacon.

Realizing that we will have to accept the usual delay of at least a year or two between design and production of the beacon, we feel that installation of VHF-ADF equipment in the Washington center and tower is required immediately. Although this equipment would do nothing to reinforce the radar echo, it would be of great assistance in the identification problem.

Lack of radar derived altitude information is another limitation to the present use of radar for traffic control. We have aircraft operating in three-dimensional space, but the radar in use only presents a two-dimensional picture, azimuth and distance. Altitude information must be obtained, when possible, from other sources. Some of the most difficult problems we have had to face, and are still facing, result directly from this lack of altitude information. For example, "Eastern trip one" is on a radar departure and conflicting traffic appears on the scope five miles ahead. The radar controller has no altitude information on the traffic. The weather is that marginal VFR condition, visibility 3 or 4 miles, that we all worry about. Should he vector Eastern around this traffic or allow the targets to collide on the assumption that they are at different altitudes? I believe that you will agree that the only safe choice is to ask radar to separate us by vectors. However, what is really needed is radar derived altitude information presented in a manner acceptable to the traffic controller using it. As long as we have only two-dimensional information on a three-dimensional operation, there are bound to be difficulties.

Other Problems

Certain other problems have arisen which stem from the type of radar display equipment in use in the center, the VG-2 type gear. This is the large, horizontal, bright face tube, type of display. Basically, there is sound reasoning behind the use of equipment such as this, which allows plastic markers, carrying the aircraft identification and other information, to be moved across the tube face to follow the targets. Let me point out here that all the radar equipment in the Washington center

(Continued on Page 15)

Camera

A group of ALPA-UAL pilots held an Air Safety Conference, April 10-13, in San Diego, with Company representatives. ALPA members attending were: H. G. Portman, 12; A. W. Stainback, 34; C. G. Sperry, 34; A. R. Littlefield, 5; J. A. Lovett, 33; R. R. Stone, 12; C. N. Eggert, 27; W. K. Baschen, 12; M. E. Heflinger, 57; H. L. Jacobson, 34; E. E. Bach, 5; P. Bowers, 115; G. H. Doward, 33; A. M. Cusamano, and R. Lenahan. The Company was represented by C. Christenson, A. Salmon, J. Batchelor, and I. Thatcher. Flight Engineers present were: H. Arnold and T. Tatman. J. Blunk represented Line Maintenance.

On steps from bottom: H. G. Portman, C. G. Sperry, E. E. Bach. . . . In plane, left to right, W. E. Rhoates, T. Richard.

C. N. Eggert, Flight Engineer H. Arnold, H. G. Portman. . . .

. . . W. C. Mentzor and Captain J. A. Lovett . . .

Captains . . . B. P. Bowers—
H. L. Jacobson.

News

Convair 340 Evaluation

An ALPA committee (see photos pages 10-11) to evaluate the performance of the Convair 340 met March 24 in San Diego, at the Consolidated Vultee Corporation factory. The Committee included pilots from domestic air lines which plan to purchase the new model Convair 340: Peter Dana, Northeast; Allen P. Shelly, Continental; Hershel Clark, National; L. L. Caruthers, Delta; Lloyd Damron, Chicago and Southern; L. Homer Mouden, Mid-Continent; John Meyer, United; Howard L. Jacobson, United; A. G. Place, Braniff; and T. G. Linnert, ALPA Engineering and Air Safety Department. The Committee met at a time when the CAA tests were nearing completion, and was able to give the new model a performance check, from the pilot's point of view.

Following is a brief report on the Committee's activities during the tests:

Ground Inspection

Propellor clearance on the 340 is practically identical with that of the 240—12 inches. And, there is ample prop clearance in the event that the main gear or nose wheel tires become deflated. The 340 main gear has a larger tire designed to produce softer taxiing and landing performance. In addition, the landing gear cover doors and the landing gear door actuating parts have been made stronger to better withstand more service abuse. The nose gear has a taxiing light, but since it is nonsteerable and restricted in use to when the nose gear is extended, the Committee suggested that it be moved to the nose of the aircraft. In that position, it will remain cleaner and can be utilized at any air speed and will not be restricted to use only when the nose gear is extended. The positive down-lock mechanism has been improved upon.

Over-all observation of the aircraft revealed that considerable servicing provisions are present. Inspection doors appear to be adequate in size and number and will allow visual inspection of the salient areas of the craft. The exterior lighting arrangements conform with conventional practices. Provisions for the future installation of an anti-collision light on top of the fin have been made, and the wing tip can accommodate a larger navigation light fixture—forthcoming in the near future—which will make the airplane more conspicuous during night flying.

The 340 has a built-in ramp feature which allows for rapid evacuation in the event of any emergency while the plane is still raised on its landing gear. Fueling is accomplished from the top side of the wing. However, "underwing fueling" is available at the customer's request.

The thermal-deicing system was of interest to the Committee due to the fact that it uses the heat from the engine exhaust system. The Committee favored this system over that of the gasoline heater system. Considerable stainless steel is used in the forward nacelle area which should do much to retard the effects of an engine fire.

The wing structure of the 340 was of great interest to the Committee. The structure is a one-piece construction and appears to be clean cut and sturdy. So that damages in service will not necessitate discarding the complete wing, the Convair people have designed into the construction a repair and salvage system.

Major Changes

From a lecture given by Convair's Aerodynamics Engineer, J. Donaldson, the Committee was informed of the following major changes in the new model: (1) A wing aspect ratio of 12 to 1 as compared to the 240's 10 to 1 ratio. (2) The 340 wing area has been increased 103 square feet—from 817 square feet on the 240 to 920 square feet on the 340. (3) The wing flap has been improved in efficiency and the area increased. (4) Stall speed decreased approximately 2 mph.

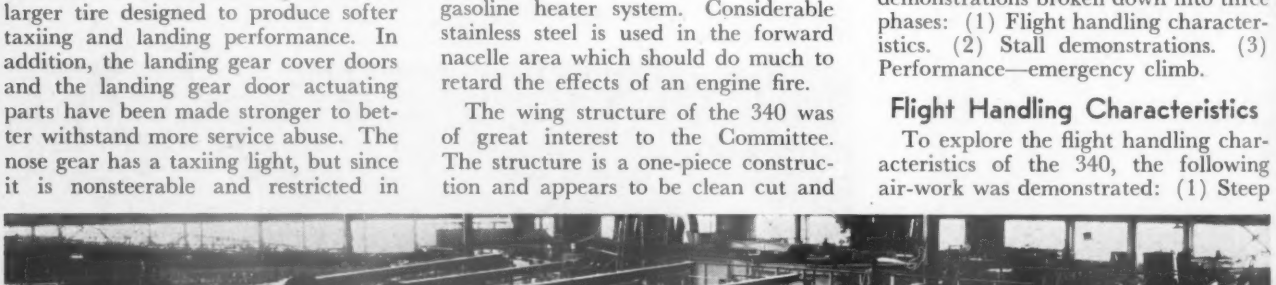
Generally, CAR Climb Requirements are about the same as those on the older model 240.

Flight Demonstrations

The Committee pilots expressed a desire to fly a production model of the Convair 340, not the prototype test aircraft. As a result, the Convair people reserved the first production airplane which had about 100 hours of shake-down time for the group. The plane was loaded to full gross weight and full forward C. G., with sand in the cabin, cargo, and baggage areas. The pilots chose to have the flight demonstrations broken down into three phases: (1) Flight handling characteristics. (2) Stall demonstrations. (3) Performance—emergency climb.

Flight Handling Characteristics

To explore the flight handling characteristics of the 340, the following air-work was demonstrated: (1) Steep



Convair factory wing assembly floor showing new one-piece wing feature.

Full gross weight and full forward C-G take-off with one engine feathered at V_1 speed. ALPA group is abroad.

climbing turns—both engines. (2) Steep, level flight turns with and against the inoperative engine. (3) Approach to stalls—both engines. 4) Yawed and normal turns. (5) Start of buffeting speeds in level flight and climbing turns. (6) Cruise speed flight characteristics checked for trim and noise level (it was observed that the 340 cockpit has a lower sound level than the 240, making for reduced effort for crew conversation. (7) Checked flat turns, simulating slight ILS corrections (Recovery from skidding turns, or uncoordinated turns was easily accomplished, making for desirable instrument approach characteristics). (8) Checked controls (Ailerons are slightly heavier than rudder and elevators but not to any serious proportions). (9) Checked aileron, rudder, and elevator trim response. (10) Checked visability during climbing and descending turns.

Stall Demonstrations

The pilots attempted to use stall demonstrations which were representative of their "line" flying. Stalls were made in the "approach configuration," and to simulate stalls occurring during the approach to a landing. The landing lights were extended throughout this stall. A stall was made in the approach configuration with one engine inoperative and here again the landing lights were extended. Stalls were also made with full flap, gear down approach power, and with landing lights extended to simulate a stall occurring during a night approach. Several stalls were made in the clean configuration with power off.

To experience the aircraft's behavior in a stall in a 20-degree turn with gear and flaps up with approach power on both engines, the 340 was flown at approximately 135 mph with the air speed reduced until fairly severe buffeting occurred. At this point the air speed had decreased to approximately 115 mph. The low speed 20-degree turn, accompanied by buffeting, was held for a considerable period of time. The only reaction was a rate of descent of about 1,000 feet per minute.

To see how the 340 would react if a pilot was approaching a stall and had to pull out without losing altitude, the power was set at 2,600 RPM and 25 inches of manifold pressure. The air speed was allowed to decrease to about 125 mph, then reduced an additional 5 to 10 mph into the buffeting range. At this point, both engines were pushed up to rated power. The rate of descent was checked immediately without any loss of altitude. A high rate of climb was immediately possible.

Emergency Climb

To check the climb-out-ability of the 340 in the event of engine failure during take-off, several simulated single engine take-offs were made. To reduce some of the hazard, three zero-thrust take-offs were made first, and these were followed by a take-off with a prop feathered. During all of these take-offs, the 340 accelerated rapidly. At the V_1 speed, the left propeller was feathered, and a climb of 440 feet was obtained at the end of the first minute. Take-off power was held for two and one-half minutes, then rated power was held until 4 minutes time had elapsed. Taking off with one engine feathered, at the V_1 speed, the 340 had reached over 1,000 feet in 4 minutes.

(Continued on Next Page)

Convair 340 Evaluation Committee confers with Ben Howard, ALPA Member 46 (extreme left). Others, left to right, are: A. G. Place, Braniff; T. G. Linnert, ALPA Engineering and Air Safety Department; John Meyer, United; Homer Mouden, Mid-Continent; H. Clark, National; P. Dana, Northeast; A. Shelly, Continental; L. Damron, Chicago and Southern; L. Caruthers, Delta; and H. Jacobson, United.

Development Noted

It was the group's opinion that the Convair 340 shows improvement over its predecessor, the Convair 240. It was also obvious to the Committee that many advantages can be obtained when a lengthy service test and development time period occurs between models.

—T. G. Linnert

DC-6B Gross Weight

Douglas DC-6B transports have been certificated for a gross take-off weight of 107,000 pounds.

First of the modernized and improved models of the DC-6 series of airliners to be delivered in the 107,000-pound configuration will go into service of Pan American World Airways.

Previous top gross approved by the Civil Aeronautics Administration was 100,000 pounds. Virtually all of the increased weight will be used in added fuel to increase the range of DC-6Bs.

Military Use of Newark

Newark Airport will be reopened late this month to limited military use. All flights will use runways 28 or 24 for landings and runways 10 and 6 for take-offs. Air Force and New Jersey National Guard aircraft will use routes to and from Newark over the Bay and the Hackensack Meadow. The Air Force will operate only in daylight under VFR with a ceiling of 1,000 feet and visibility of 4 miles on approach paths.

The Port of New York Authority has been authorized to enter into agreements suspending rentals, landing charges and other charges at Newark provided for in leases with American, Capital, Eastern, United, and Flying Tigers for a period beginning February 11, 1952, until the airport is reopened for commercial use.

Work on new runway A is continuing. The Port Authority, April 10, authorized the award of a contract for installing fill for the approach lights (ALPA's Approach Light Standardization Committee is plugging for installation of the ALPA system), middle marker, and access road for the new runway.

Financial Reports

AMERICAN AVIATION DAILY states that financial reports of 21 air transport companies show a total net income after taxes for 1951 of $54,608,000, a 39 per cent jump over their net for 1950.

Monoply

A Subcommittee on Monopoly of the Senate Small Business Committee has asked the Civil Aeronautics Board to prepare a study on competition in the air transport industry. CAB Chairman Donald W. Nyrop is scheduled to testify June 30, 1952. It will not be known whether scheduled and non-scheduled air line officials will be called to testify until after Nyrop's testimony is in.

Adams on Temporary Duty With U. S. Marine Corps

The Civil Aeronautics Board has announced that for the period March 29 to April 12, 1952, inclusive, Board Member Colonel Joseph P. Adams served on training duty with the U. S. Marine Corps at Quantico, Virginia.

CAB Member Adams

Member Adams, who holds the permanent rank of Colonel in the U. S. Marine Corps Reserve (aviation) was assigned to active duty for familiarization in Marine Corps helicopter flight operations during his tour of duty.

Colonel Adams has held the rank of naval aviator in the Marine Corps Reserve since 1930, and served five and a half years active duty in World War II.

He has served as a Member of the Civil Aeronautics Board since February 6, 1951.

Miami Air Lines Crash

The Civil Aeronautics Board investigation team looking into the crash of the Miami Air Lines C-46 at Newark, December 16, said this month that the cause was "a stall with the landing gear extended following a serious loss of power." The Board also said that "the carrier's pilot training program in emergency procedures was informal, irregular and therefore inadequate." The report indicated that there were pre-take-off malfunctioning aspects which should have called for a thorough inspection of the plane's right engine.

Sayen to Doolittle Committee

ALPA President C. N. Sayen gave the recommendations of the Association regarding the critical airport situation in an appearance before the Doolittle Commission April 8. He pointed out that the Federal Government should concern itself with the zoning regulations in the vicinity of airports, and that "The primary responsibility for the regulation of interstate air traffice should lie with the Federal Government, that the regulation of air traffic should be exclusively reserved to one agency—the Federal Government.

Sayen stated that in the regulation of flight patterns in the vicinity of airports noise consideration should *not* be a primary factor—safety, alone should be the primary consideration.

The Association also recommends that airports should be designed with a particular type of equipment operation in mind. There should be different airports for commercial transports and for light planes.

Regarding air traffic control personnel, he said, "They are being taken over by the military without consideration for civil air transport needs." He made a plea for closer cooperation between the Military and the Civilian in the utilization of personnel and equipment, and in the sharing of new equipment developed for air safety.

Ditching Regulations

ALPA has asked for changes in the regulations concerning the ditching of an aircraft. Representatives pointed out that there is no regulation to cover an "emergency" ditching. Present regulations cover only a "planned" ditching.

ALPA representatives at the April 2-3-4 Civil Aeronautics Board hearing

into the Northeast Airlines DC-4 accident near Sandspit Airport read into the record the Association's recommendations for "emergency" ditching safety factors: (1) Life rafts should be located so they can be jettisoned into the water from a compartment opening from the outside of the aircraft. (2) A line should connect the life rafts and the aircraft so the rafts cannot float away. (3) The lines should be attached to the air bottles so that the pressure of the line will release the air and inflate the raft automotically. (4) Rafts should be placed on both sides of the aircraft in the event that evacuation is impossible from either side. (5) Spark proof flashlights should be placed over emergency exits and doors and should be turned on manually by the flight attendant upon take-off and landing.

Inadvertent Reversing

A Reverse Pitch System proposed by ALPA which the Association believes will eliminate the possibility of inadvertent reversing of props will soon be tested by Hamilton-Standard.

The ALPA proposed system provides for a mechanical pressure relief valve which prevents an inadvertent prop reversal. The valve is on the nose section of the engine and ties into the reversing hydraulic pressure line to the propeller. It is a manually operated mechanical device which will prevent propeller reversal malfunctioning caused by failure of the electrical system.

Jets

Walter H. Johnson, Jr., assistant to American Airlines President C. R. Smith, in a recent address is alleged to have stated that AAL will order jet transports next. The recent order for 25 DC-7s was probably the last AAL order for piston-powered planes, he said.

Convair 340 Certificated

The Convair 340 has been certificated for a maximum gross takeoff weight of 46,725 pounds, landing weight of 44,500 pounds and zero fuel weight of 43,000 pounds. The type certificate is for 1,727 pounds over the new 44-passenger twin-engine transport's original specifications.

CAB Investigation Sought

A resolution authorizing the House Interstate and Foreign Commerce Committee to conduct a study and investigation of the Civil Aeronautics Board has been introduced in the House.

OPINION:

United Features columnist Robert C. Ruark, in his April 13 column states his view of the recent coincidental accidents in the New York vicinity. Says Ruark: ". . . you do not call a halt to progress . . ."

New York—we have had another fatal airplane accident in our neighborhood, with some more innocent bystanders killed by a plummeting plane, and the to-be-expected howl goes up. This is entirely understandable, because a fellow figures to be safe in his home, of all places, and the airplane has now successfully invaded the bedroom.

The way I see it, there is no actual solution to safety for either the airplane passenger or the person who lives in the vicinity of an airport. There is actually no solution to safety anywhere except in death itself, if you want to be real technical about it.

Death has a weird way of choosing its victims. This is especially true when death is administered by airplanes. I notice that somebody got killed by a plane on a golf course the other day. Somebody else got killed by a plane while standing on top of a Mexican pryamid.

Before the days of the bicycle and the motorcar, death due to being kicked by a horse was not uncommon. People still break their necks in bathtubs.

Mostly it is the innocent bystander who gets killed. Automobiles account for thousands of innocent bystanders each year, but nobody pays much attention to their passing any more—except, of course, the heirs. We have accepted the car as a quiet killer as we once accepted the horse as a constant kicker of people.

I believe that in the course of progress certain things may be accepted as inevitable, and one of them is that in an air age some people figure to be killed as a result of association with airplanes.

One certainly does not advocate a disregard of all the safety precautions possible, nor does one become careless of the life and welfare of others. But at the same time you do not cry a halt to progress because a few people are innocently destroyed in the process of progress.

I think the closing down of Newark Airport, with its consequent burden on LaGuardia and Idlewild, was a shameful thing and a very dangerous thing for the general health of the nation. All airports are too close to cities. They defeat their purpose if they are not close to cities.

If we can close down a Newark airport, and even suggest the possibility of closing down two more big ones in the neighborhood of New York, we are seriously contemplating the destruction of our entire airline communication, for peace and war, in this country. According to the Daily Worker, the Communist party has regarded this gleefully.

It is tragic when a plane gets out of hand and plows into a home, but it is only one of many tragedies a man incurs by living until he dies. And you cannot hide from the whims of fate.

Sayen Chosen IFALPA President

ALPA President, Clarence N. Sayen, has been elected to the Presidency of the International Federation of Air Line Pilots Association.

Sayen was elected to the post while attending the annual convention of the International Federation in Sydney, Australia, April 15-19. He succeeded Bernard Frost of the British Air Line Pilots Associations. 20 Nations were represented at the gathering of Air Line pilots delegates. Chicago has been chosen as the site for next year's convention to be held in April, 1953.

In accepting the post, Sayen called for "Air Safety rules chosen on a global basis." Modern air line routes, he said, have reduced the size of the world in matters of time. And it is vastly important that a set of operational procedures be established which are world-wide.

Such cooperation was apparent at the International meeting when a

single line approach light system was adapted by Convention delegates.

The International Federation of Air Line Pilots Associations is a group representing the majority of the world's organized air line pilots. Its primary purpose is "the establishing of methods for communications between pilot's association in different countries on matters of mutual interest."

Douglas on Jet Transports

When U. S.-built jet transports enter commercial service, they will add the essential attributes of low operating cost and long range to the advantages of greater speed and comfort inherent in turbine-driven aircraft.

Limited commercial operation of jets will begin this year, but fully satisfactory models will not be available until 1957.

Good jet transports may be expected before good turbo-prop airliners, but the latter ultimately may prove to be the most satisfactory for many types of commercial use.

These opinions were voiced at Victoria, B. C., this month by A. E. Raymond, vice president-engineering of Douglas Aircraft company, in a talk before the Air Industries and Transport Association of Canada.

Title of the talk given by the engineering head of the company was "The Bouncing Crystal Ball."

It dealt primarily with the myriad considerations and problems involved in producing a successful new transport design.

"The future of transport aircraft design is not easy to forecast right now," said he. "In fact, it is possibly more difficult than ever because so many influences are at work, constantly changing in themselves or in relation to each other."

Raymond did, however, make these reasoned estimates of what may be expected:

"Jets will go into commercial service in a small way this year. Next year, or the year after, more efficient axial type engines will probably be in service. By 1957 we may expect still more powerful, more efficient engines in commercial service, both here and abroad.

"The 1957 engines will be able to get operating costs down to present-day values, and that is important."

The Douglas executives evaluated the various power plant installations for transports thus:

"The piston engine will continue to be the most dependable and highly developed for a long time. It will also be the most economical, at least until the advanced turbo-prop of 1958 is shaken down.

"The compound engine is the most conventional type that will give substantially greater speed than the simple piston engine during the next several years.

"The turbo-prop of 1956 will give somewhat greater speed than the compound, but is a more radical type requiring more development time and will be substantially outmatched in speed by the jet.

"The jet of 1957 will be superior in speed to all others but will require a radically new airplane, with new operating techniques, and consequently we must anticipate that a period of time will be needed before we are at home with it.

"The advanced turbo-prop of 1958 should eventually have lower operating cost than all the others and should therefore be superior for coach and cargo work. Its good landing and take-off performance also should make it attractive for medium to short ranges."

Raymond explained that the unavailability of suitable engines is largely responsible for the delay in producing a fully satisfactory jet transport. Because of the necessity for military development, however, suitable jet engines will become available for commercial use before turbo-prop engines of comparable efficiency.

But when turbo-prop engines are developed fully, Raymond believes they may prove to be the most satisfactory for commercial operation.

Expansion of Air Travel

AVIATION WEEK reports: U. S. domestic airlines can look forward to carrying 43 million passengers annually by 1953, unless the national economy suffers a setback presently unseen, CAA Deputy Administrator F. B. Lee told a gathering of the American Assn. of Airport Executives in Ft. Worth recently.

This prediction would mean almost doubling last year's record of 23 million passengers flown. Several firm guides, said Lee, point the way.

National income could reach $400 billion by 1960.

Population then will be approximately 169 million, Bureau of Census estimates.

Invasion by helicopter services is now in prospect in the highly lucrative and as yet untouched (by aircraft) shorthaul intercity traffic market covering trips up to 75 miles.

Touching on this shorthaul market, Lee said, "What this kind of air travel will do to the figures on passengers carried in the next ten years should make any forecaster nervous." As things now stand, the Air Coordinating Committee has predicted shorthaul passenger copter service availability will move up to 1955 rather than the previous estimate of 1960.

APOLOGY

It was incorrectly reported in the March issue of *The Air Line Pilot* in a reprint of an editorial titled *"Opinion"* (page 7) that Dick Merrill of Eastern Airlines was the pilot of a Constellation accident involving a run-a-way prop. The lives of 65 passengers were saved through the action of the plane's pilot. The pilot of the aircraft was Captain W. E. Johnson. *The Air Line Pilot* apologizes to Captain Johnson for having given the credit for the heroic action to another person.

To All Members of the Air Line Pilots Association

The family of Wayne G. Foster gratefully acknowledges and deeply appreciates the kind expressions of sympathy extended them in every way.

Sincerely and
Gratefully yours,
/s/ Helen Foster,
Jack and Gary

In Memoriam

Jack L. Woederhoff

of U. S. Airlines crashed attempting to land at New York International Airport April 5, 1952.

William B. Crockett, Jr.

of U. S. Airlines crashed attempting to land at New York International Airport April 5, 1952.

Daniel W. Pippinger

of Pan American World Airways succumed to a cerebral hemorrhage April 4, 1952.

Hugh Herndon, Jr.

of Trans World Airlines succumbed to a coronary thrombosis April 6, 1952.

Credit Union Report

ALPA FCU Financial and Statistical Report of March 31, 1952

BALANCE SHEET

Assets

	March 1952
Loans	$303,527.68
Cash	65,964.60
U. S. Bonds	184,420.32
Furniture and Fixtures	2,092.75
Prepaid Expense & Misc.	397.63
Total	$556,402.98

Liabilities

Shares	$538,215.41
Reserve for Bad Loans	8,776.96
Undivided Profits	4,421.91
Profit	4,838.47
Accounts Payable	150.23
Total	$556,402.98

STATEMENT OF INCOME & EXPENSE (Year to Date 1952)

Income

	March 1952
Interest on Loans	$ 3,101.56
Investment Income	0
Other Income	0
Total	$ 3,101.56

Expenses

Other Salaries	$ 847.22
Office Supplies	0
Educational Expense	0
Loan Insurance	225.25
ALPA Reimbursement	0
Depreciation	54.25
Legal and Collection Expense	0
Postage	56.46
Miscellaneous	138.00
Total	$ 1,321.18
Net Profit	$ 1,780.38

Statistical Information

	March 1952
Number of Members	2,020
Number of Potential Members	9,798
Loans Made Since Organization (Number)	1,666
Loans Made Since Organization (Amount)	$1,075,226.09

Seniority, Sex . . .

(Continued from Page 6)

three Ss is salary. From the time a pilot first gets on the seniority list until he dies his salary is never quite adequate to keep him in the manner to which he would like to become accustomed. His pay check never reflects what he believes the industry is getting out of him. He blasphemes the "rock-headed" negotiation committee that signed his working agreement. Having never read his contract it is difficult to explain his raises to him. Because his representatives spent more than two years wresting a few additional dollars for him is more proof that he was sold down the river.

He will logically point out that he can't lay any away for his old age. The Company pension plan, which retires him at age sixty, leaves him only three years to live by any insurance company's records.

Farwell Gentle Reader

These tales of woe could go on indefinitely. Perhaps this description of the men who man our aircraft will give you readers a working knowledge of what makes them tick, if they do. I trust it will cause some tolerance when they may appear eccentric. He may be classed as a frustrated egotist. Nothing ever seems perfect. His job requires precision and perfection and yet his operations are cluttered with uncertainties, weather irregularities, equipment failures, and strict censorship. Hence: This breed of pilot.

A Parting Thought

It has been asked to which of the three Ss the pilot attaches the greater importance. The answer seems to depend upon the individual pilot. I have yet to see the twenty-year man who wouldn't grudgingly, but willingly, trade a few numbers on the seniority list to recapture the urges of yesteryear.

Air Line Pilot Declares an Emergency

(Continued from Page 7)

was a gift to the CAA. The Air Force donated its MEW—Micro-wave Early Warning or long range radar, and the Navy donated the VG-2 equipment. I'm not trying to be critical of that equipment, I'm only pointing out what improvement is needed. I was told that the Navy was most reluctant to supply the VG-2's because they were aware that the equipment was obsolete and had serious limitations as a traffic control device. They were afraid that its use might jeopardize the whole program. Specifically, the rotation speed of the long-range radar is necessarily slow and the quality or definition of the radar information on the face of the scope does not compare with the ASR type of presentation in the tower. Remembering that the basic idea is sound, improvements in the VG are in order. I have decided that, for the present, the letters V G as applied to this equipment do not stand for the words "very good."

Along about this point you might well be wondering why we were interested in radar for traffic control in the first place in view of all its limitations. Fundamentally, radar has possibilities from the pilots' viewpoint because it is capable of more closely duplicating VFR traffic patterns under IFR conditions than any other practical system known. Moreover, it is capable of being safer than the present system and it provides a more efficient use of the available airspace, thus reducing traffic delays. What is the proper relationship between safety and efficiency?—the airline pilot is primarily interested in increasing the safety of flight operations, regardless of the cost to the airline—he relies on airline management to keep an eye on that. The pilot is only indirectly interested in the reduction of traffic delays, although that is of prime concern to airline management. As it is presently implemented, I believe radar control is providing increased safety as long as all the limitations of the present equipment are known and compensated for. I feel that present procedures have taken into account all known and previously mentioned limitations, and, therefore, the new system is safer than the old system. Delivery of beacons, VHF-ADF, altitude radar, and the rest would provide considerably more in the way of added safety.

In the matter of added efficiency, there can be no doubt that radar departures have moved more traffic with less delay. During weather conditions which produced delays of an hour to an hour and a half under the old system, use of radar reduced them to delays of not more than fifteen minutes. As members of the air transport industry, pilots realize that we stand to benefit indirectly from any such improved operations.

In summary, I feel that radar traffic control will work—it has to work since no one has come up with any other practical solution to the air traffic problem. It has worked so far because of the determined efforts of the individual controllers and pilots. However, to make it work right we need the proper tools to do the job. These, again, consist of the radar beacon, VHF-ADF, altitude radar, data transfer and continuing development and improvement of radar in general. The early movies used to be called the "flickers." This was, as a good many of you will recall, because of the slow shutter speeds and the associated jerky movements. Radar is presently going through the "flicker" stage of development. For years we have all recognized the need for a beacon. The time has come to stop talking about it, writing letters about it, setting up committees to discuss it. Action is required now—bold, intelligent, constructive action.

An airline pilot is declaring an emergency because, in an effort to cut down delays, he has taken off in a new model and suddenly found himself on the gages without the proper instruments. In this case he won't terminate the emergency until someone presents him with a radar beacon or its equivalent.

YOU

can be proud

of your part in building a better America

Something wonderful has happened in our country during the past 10 years.

It all started during the first dark days of World War II.

One of Uncle Sam's biggest problems was how to get a thousand and one things done *voluntarily* on the home front. Public-spirited civic leaders offered their services *free*.

They formed The Advertising Council to tell the story. They called upon America's unmatched communications forces to help. Soon millions of messages were going out in magazines, newspapers, radio, posters and publications.

Wars take money. So the Council and Business got behind the Treasury's War Bond Drives, and the nation responded as it always does to a just cause.

Wars chew up raw materials fast. So this team helped Uncle Sam conduct salvage campaigns for metals, fats and paper. Again *you* met the need.

Then came campaigns on forest fire prevention, Victory Gardens, "loose talks," rationing, nurse recruitment and many others. And each time, when they learned the need, the people acted.

But this voluntary service did not end with the war. By popular demand, it began to help such peacetime causes as Savings Bonds, Highway Safety, Community Chests, Red Cross, Economic Education, Crusade for Freedom, Better Schools, Civil Defense and Blood Donation.

Over a billion and a half dollars in advertising space and time have been given freely to do these vital jobs in the public interest. Hardly an American but knows about them and has had some part in their progress.

This publication salutes The Advertising Council on its Tenth Anniversary as a wonderful example of American teamwork. Its achievements are a tribute to the whole American people — to business that supports its activities—to all those devoted workers, in so many fields, who have helped to tell you what needed doing. But most of all to *you* who *did* it!